

Title (en)
Polypeptid-polysiloxane copolymers

Title (de)
Polypeptid-Polysiloxan-Copolymere

Title (fr)
Copolymères à base de polypeptides et de polysiloxanes

Publication
EP 0994144 A2 20000419 (DE)

Application
EP 99119586 A 19991002

Priority
DE 19848002 A 19981017

Abstract (en)
Polypeptide-polysiloxane copolymers (I) have polysiloxane unit(s) (II) linked by spacer group(s) (Sp) and functional groups (FG) to the C- and/or N-terminal end(s) and optionally also side chains of polypeptide unit(s) (IIIA) or (IIIB), with a molecular weight of 250-9000, in a (II):(III) weight ratio of 1:99 to 99:1. Polypeptide-polysiloxane copolymers (I) have polysiloxane unit(s) of average formula (II) linked by m spacer group(s) (Sp) and functional groups (FG) to the C- and/or N-terminal end(s) and optionally also side chains of polypeptide unit(s) of average formula (IIIA) or (IIIB), with a molecular weight of 250-9000, in a (II):(III) weight ratio of 1:99 to 99:1; m = 1-52; A = a group of formula (A1) or (A2): R1 = 1-4 carbon (C) alkyl; R2 = R1 and/or -Sp-; -Sp- = a divalent spacer between siloxane and another functional group, linked to the spacer by a silicon-carbon (Si-C) bond, especially optionally branched 1-20 C alkylene, optionally containing double bonds, aromatic rings or heteroatoms, especially oxygen (O), nitrogen (N) or sulfur; a = 0-200; b = 0-50; if a = b = 0 or b = 0, then R2 = -Sp-; FG = -CH(OH)CH2-, -CH(OH)CH2O-, -CO-, -CH(CH2CO2H)CO-, -NH-, -O-, -S-, -CH(NH2)CO- or -CH(CO2H)NH-; R3 = R4 or R5; R4 = the residue of an amino acid or -(CH2)4-NH-R6; R6 = H (lysine) or -FG-Sp-(siloxane)-(Sp)m-1-; R5 = -CH2-CH2-CO-R6'; R6' = OH (glutamic acid) or -FG-Sp-(siloxane)-(Sp)m-1-; c, d, e = positive integers or 0 in some but not all cases, especially e not = 0 if c = 0 and c, d not = 0 if e = 0 An Independent claim is also included for the preparation of copolymers (I).

Abstract (de)
Die vorliegende Erfindung betrifft Polypeptid-Polysiloxan-Copolymere, deren Herstellung durch thermische Copolymerisation von Aminosäuren mit organofunktionellen Polysiloxanen sowie deren Verwendung als grenzflächenaktive Substanzen. Die Polypeptid-Polysiloxan-Copolymere bestehen aus wenigstens einer Polysiloxaneinheit <IMAGE> und aus wenigstens einer Polypeptideinheit <IMAGE>

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IPC 8 full level
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